PARAMEDICAL COUNCIL OF INDIA

DIPLOMA IN PHYSIOTHERAPY

(D.P.T.)

SYLLABUS

Ch. No.157/1, Near Laxmi Nagar,Metro Station Gate No 1,Vikas Marg,Delhi-92

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DIPLOMA IN PHYSIOTHERAPY

COURSE DURATION:-

- It is 2 years + 6 months internship full time Diploma Course
- ELIGIBITY:-
- Candidate must have passed 12th with Physics, Chemistry, Biology or Physics, Chemistry, Math's with 35% marks in Intermediate exams. (FromUP board or any other recognized board).
- Candidate must have completed age of 17 years of age as on 31st December of admission year. There is no maximum age limit for theadmission.

FIRST YEAR

1) BIOCH, PATH, MICRO, HYG, NUTRI.SANITION, WASTE MANAG.
2) FIRST AID, DISASTER MANAGEMENT. ANATOMY & PHYSIOLOGY RELEVANT TO PHYSIOTHERAPY
3) INTRO OF PHYSIOTHERAPY, ANATOMY, PHYSIOLOGY, ELEMENTAL NURSING
4) PHARMACOLOGY.HUMAN RELATIONS,COMMUNITY HEALTH DISEASES,EQUIPMENT MANAGEMENT

SECOND YEAR

1) DISEASES OF EYE, DIAGNOSTIC INSTRUMEELEMENTRY PHY. & MINOR CRAFTS, PHY. OF HEAT & HEAT THERAPY, LIGHT & LIGHT THERAPY
2) MGMT. OF MEDICAL & SURGICAL EMERGENCIES, PHARMACOLOGY, MEDICAL SUBJECTS
3) PATHOLOGY, ORTHOPEDICS, MASSAGE MANIPULATION EXERCISE & PHYSICAL DRILL & YOGA
4) PHY. OF ELECTRICITY & ELECTRO THERAPY, HYDROTHERAPY, OCCUPATIONAL THERAPY

FIRST PAPER: SYLLABUS COVERS

1. BIOCH, PATH, MICRO, HYG, NUTRI.SANITION, WASTE MANAG

1.General Orientation about parts of human body. Various terms used in Anatomy. Total numbers of bones, their names & location. Basic idea about organization of body, from cell to organ systems.

2.Structure of Animal cell, Cell organelles & their functions.

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3.Human tissue, types, structure & functions.

4.Osteology: Names, location, identification and basic details of all bones. (Details of skull bones are not required).

5.Pathology: A field of study that can contribute to understanding health and disease.

6.Access to safe drinking water, sanitation, and hygiene can help prevent diarrhea, parasitic diseases, and environmental enteropathy. These diseases can make it harder for the body to absorb nutrients and can lead to malnutrition and stunting.

7.Good hygiene is essential for food preparation and consumption. Poor hygiene can lead to the spread of germs that cause food-borne diseases.

8.Promoting good hygiene behaviors, such as hand washing and keeping homes and toilets clean, can help improve nutrition.

9.Hygiene: Actions that keep the body clean, such as washing hands and hair, and taking a bath.

10. Nutrition: Consuming food and beverages that is necessary for health and growth.

10. Discard food left out at room temperature for more than two hours. Refrigerate or freeze food immediately after eating, and use refrigerated food within four days. Reheat leftovers to the appropriate temperature.

11. Use clean water for drinking. In areas where water may be contaminated, boil water for one minute, and then let it cool before drinking.

12. Canned beans and chickpeas are a good source of nutrients and can be stored for months or years. Canned oily fish, like sardines, mackerel, and salmon, are high in protein, omega 3 fatty acids, and vitamins and minerals.

13. A poor diet can lead to gum disease and tooth decay. Foods high in carbohydrates, sugars, and starches can contribute to plaque acids that break down tooth enamel.

14. The 5 Rs of waste management are refusing, reduce, reuse, repurpose, and recycle. These help businesses identify ways to reduce waste and pollution.

15. Waste can be classified as biodegradable, non-biodegradable, or recyclable.

16. Sorting waste at the source is an important step in waste management.

17. Hazardous waste management involves the proper containment, management, and disposal of hazardous waste.

18. Recycling is a key part of waste management. For example, recycling paper reduces the need to cut down trees, which helps conserve energy and reduce carbon footprints.

19. Landfills are a major part of waste management systems, especially in underfinanced systems.

20. Sanitary landfills are a common way to dispose of solid waste.

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2. FIRST AID, DISASTER MANAGEMENT. ANATOMY & PHYSIOLOGY RELEVANT TO PHYSIOTHERAPY

1. Loosen tight clothing, arrest bleeding, cover wounds, and immobilize fractures.
2. Wet your hands, apply soap, rub vigorously for at least 20 seconds, rinse, and dry.
3. Apply and maintain pressure on the wound to prevent further blood loss. If there is an object embedded in the wound, don't press down on it.
4. Place the lower palm of your hand over the center of the person's chest and your other hand on top. Push straight down on the chest about 2 inches (5 centimeters).
5. Reducing the likelihood and severity of disasters through actions like improved construction practices.
6. Preparing people for disasters by developing plans and training people to implement them.
7. Providing rapid and efficient medical, rescue, and emergency supplies and equipment to those in need.
8. Implementing actions to promote sustainable redevelopment after a disaster, such as new building code standards and land use planning controls.
9. Physiotherapists need to understand anatomy and physiology to accurately assess patients and determine the root cause of their symptoms.
10. A solid understanding of anatomy and physiology is crucial for designing effective treatment plans that target the underlying cause of a patient's problem.
11. Anatomy and physiology teach you how the body works, which help you, understand how, when, and why treatments and procedures are used and how they may affect the body.
12. Understanding anatomy and physiology is important for injury prevention and treatment.

3. INTRO OF PHYSIOTHERAPY, ANATOMY, PHYSIOLOGY, ELEMENTAL NURSING

1. Physiotherapy provides pain relief and aids in rehabilitation and recovery. It utilizes techniques like manual therapy, exercises, and electrotherapy to alleviate pain and restore mobility, strength, and flexibility, facilitating recovery after injuries, surgeries, or illnesses.
2. Anatomy: The study of the body's structures, such as organs, tissues, and cells.

3. Physiology: The study of the function of the body's structures.
4. Comparative anatomy and physiology: The scientific study of comparing and contrasting the structural and functional characteristics of different organisms.
5. The largest organ in the body, which protects the internal environment from the external environment. It includes the hair, nails, epidermis, dermis, and hypodermis.
6. A biological system of organs that takes in oxygen and releases carbon dioxide.
7. A system with both solid and hollow parts that transport food from the mouth through the digestive system.
8. Can be divided into anatomical divisions based on anatomy and physiology. The central nervous system (CNS) is made up of the brain and spinal cord, while the peripheral nervous system (PNS) is everything else.
9. Person: The patient and the people in their lives, including their spiritual, social, and medical needs.
10. Environment: The patient's internal and external surroundings, including all circumstances that affect their health and well-being.
11. Health: The patient's level of wellness or well-being.
12. Nursing: The interaction between the nurse and the patient.
13. Professional relationships.
14. A patient care delivery model.
15. A management approach.

4. PHARMACOLOGY.HUMAN RELATIONS, COMMUNITY HEALTH DISEASES, EQUIPMENT MANAGEMENT

1. Pharmacology is the study of how drugs and other chemical agents affect biological systems. It's a branch of medicine and biology that draws on knowledge from many other disciplines, including physiology, biochemistry, cell and molecular biology, medicine, pharmacy, dentistry, nursing, and veterinary medicine.
2. How drugs and other chemical agents affect biological systems.
3. The sources, chemical properties, biological effects, and therapeutic uses of drugs.
4. Helps ensure the safety and effectiveness of medications.
5. Pharmacology studies drug action, while pharmacy is the science and technique of preparing and dispensing drugs.

6. Refractive errors: Such as nearsightedness, farsightedness, astigmatism, and presbyopia (age-related farsightedness).
7. The quality and quantity of social ties can affect health outcomes, including cardiovascular disease, cancer, and chronic conditions. Loneliness is a complex phenomenon that can result from unsatisfactory human connections, and is associated with depression and other mood state disruptions.
8. These diseases can be passed on and include HIV/AIDS, tuberculosis, malaria, viral hepatitis, and sexually transmitted infections.
9. These include cholera, typhoid fever, food poisoning, and diarrheal diseases.
10. These include dengue, malaria, filariasis, and zoo noses.
11. These include rabies, yellow fever, Japanese encephalitis, and Kyasnur Forest Diseases.
12. This refers to improvements made to a patient's lifestyle or environment after the onset of disease or disability.
13. Rhinoviruses, the most common cause of the common cold.
14. Influenza, which attacks the respiratory system.
15. Salmonella and Escherichia coli, which can infect the digestive system.
16. Lyme disease, which can be passed on by black-legged ticks.
17. Neglected, Tropical and Vector Borne Diseases.
18. Climate Change and Health.
19. Tuberculosis.
20. Measles.
21. Dengue.
22. HIV/AIDS.
23. Corona virus infections.
24. Hepatitis.
25. Allergies.

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SECOND PAPER: SYLLABUS COVERS

1. DISEASES OF EYE, DIAGNOSTIC INSTRUMEELEMENTRY PHY. & MINOR CRAFTS, PHY. OF HEAT & HEAT THERAPY, LIGHT & LIGHT THERAPY

1. A dye is injected into a vein in the arm to see how well blood flows in the retina. This test can help diagnose diabetic retinopathy, macular degeneration, and retina detachment.
2. Early detection and treatment can prevent vision loss. You should see an eye care professional immediately if you experience a sudden change in vision, pain, double vision, or other symptoms.
3. Glaucoma: A group of diseases that can damage the optic nerve and result in vision loss and blindness.
4. Amblyopic: Also known as "lazy eye", this is the most common cause of vision impairment in children.
5. Refractive errors: Such as nearsightedness, farsightedness, astigmatism, and presbyopia (age-related farsightedness).
6. Blepharitis: An inflammation of the eyelids that causes redness, irritation, itchiness, and dandruff-like scales on the eyelashes.
7. Conjunctivitis: Also known as pink eye, this is a contagious disease that causes the whites of your eye to appear pink and you may also have a sticky discharge.
8. Retinal tear: Occurs when the vitreous, the clear, gel-like substance in the center of your eye, shrinks and tugs on the retina.
9. Elementary physics and minor crafts.
10. Physics of heat and heat therapy.
11. Physics of light and light therapy.
12. Physics of electricity and electro therapy.
13. Hydrotherapy.
14. Occupational therapy.
15. Orthopedics.

2. MGMT. OF MEDICAL & SURGICAL EMERGENCIES, PHARMACOLOGY, MEDICAL SUBJECTS

1. Calling for help: Call emergency services immediately and provide accurate information about the patient's condition and location.

2. Assessing the situation: Ensure your safety and that of others around you.
3. The fetal skull- the ovum and the fetus abnormalities of pregnancy.
4. Stabilizing the patient: Remove any threats to the patient, provide first aid, and avoid unnecessary movement.
5. Checking the patient's condition: Use the AVPU or Glasgow Coma Scale to assess the patient's conscious level.
6. Controlling bleeding: If there is trauma, control any life-threatening external bleeding.
7. Ensuring safe transport: Arrange for the patient to be transported safely.
8. A receiving area for emergency patients.
9. An operating room with the appropriate equipment and supplies.
10. The ability to administer anesthesia.
11. Adequate supplies, including gauze, linen, intravenous fluids, and antibiotics.
12. A referral system for more complicated cases.
13. The study of the relationship between drugs and humans, and involves a variety of scientific skills.
14. An applied life science that underpins pharmacology and other areas of research and discovery.
15. The study of the chemical composition, characteristics, and production of medications.

3. PATHOLOGY, ORTHOPEDICS, MASSAGE MANIPULATION EXERCISE & PHYSICAL DRILL & YOGA

1. Analyzing DNA and RNA: Isolating DNA or RNA from tissue or blood samples to identify genetic sequences that may indicate a disease.
2. Making diagnoses: Using molecular biology and genetics to confirm or make clinical diagnoses.
3. Assessing disorders: Evaluating the natural history of disorders.
4. Providing information: Sharing information with primary physicians.
5. Interpreting genomic alterations: Clinically interpreting genomic changes.

6. Preventive healthcare: This approach focuses on maintaining and promoting health, reducing risk factors, and diagnosing illnesses early.

7. Spine diseases, sports injuries, degenerative diseases, infections, tumors, and congenital disorders.

8. Specialize in the care of disorders of the musculoskeletal system and receive 5 or more extra years of training after medical school.

9. Massage therapy is a type of manipulation that involves kneading, rubbing, pressing, or patting muscles to relieve tension and induce relaxation. Some massage techniques include.

10. History and development, types and techniques, physiological and therapeutic effects of various manipulation, indications and contraindications, massage protocol for various conditions.

11. Kneading muscles that can help relieve muscle tightness or spasms.

12. Tapping or cupping the skin to create a percussion effect.

13. Applying small, circular, focused pressure to specific points on the body.

14. Manipulating the fascia that surrounds muscles and bones.

15. Slow movements and deep breathing increase blood flow and warm up muscles, while holding a pose can build strength. Balance on one foot, while holding the other foot to your calf or above the knee (but never on the knee) at a right angle.

4. PHY. OF ELECTRICITY & ELECTRO THERAPY, HYDROTHERAPY, OCCUPATIONAL THERAPY

1. Electrotherapy is a medical treatment that uses electrical currents to treat a variety of conditions, including pain, muscle spasms, and tissue repair.

2. Electrotherapy uses electrical signals to interfere with pain signals from reaching the brain. It can also improve circulation, strengthen muscles, and promote bone growth.

3. Electrotherapy is often used in physiotherapy to treat conditions such as muscle pain, arthritis, and chronic pain. It can also be used to manage neuromuscular dysfunction, joint mobility, and oedema.

4. There are two main types of electrotherapy: transcutaneous electrical nerve stimulation (TENS) and interferential therapy (IFT).

5. Electrotherapy units typically include a battery-powered device, adhesive electrode pads, and a hand-held controller.

6. Electrotherapy can be useful when conventional medicines aren't as effective. It can also help increase circulation, which is important for healing wounds and removing toxins from the body.

7. A branch of alternative medicine that uses water in various forms, such as ice, steam, or warm baths, to treat pain, stiffness, swelling, and other symptoms.

8. A type of water therapy that involves performing exercises in a warm-water pool. The water's buoyancy and hydrostatic pressure can help with pain, range of movement, and other issues.

9. Water therapy can be used to treat a variety of conditions, including: Arthritis, Musculoskeletal pain, Neurological disorders, and Oncological symptoms.

10. Water therapy can be a safe alternative to resistance training on land. The water's resistance increases as the individual pushes harder. Equipment like water paddles or webbed gloves can also be used to increase resistance.

11. Occupational therapy is a healthcare profession that helps people of all ages improves their ability to perform daily activities. It can help people regain independence and cope with physical, mental, or sensory limitations.

12. Identify strengths and difficulties, Develop practical solutions.

13. Improve skills for everyday life, such as dressing, preparing food, and managing the household.

14. Learn and practice skills for school, work, or free time. Improve concentration and memory.

15. Modify the home or workplace Use medical aids, such as a walker or prosthesis, Structure daily routines.

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BOOK

1. **LAB TECH ANATOMY AND PHYSIOLOGY –** BY DR. N. MURGESH
2. **LAB TECH COMMUNITY HEALTH –** BY DR. N. MURGESH
3. **LAB TECH GENERAL BIOCHEMISTRY –** BY DR. DINESH KUMAR SHUKLA, DR. N. MURGESH
4. **LAB TECH CLINICAL BIOCHEMISTRY -** BY DR. DINESH KUMAR SHUKLA, DR. N. MURGESH
5. **LAB TECH CLINICAL PATHOLOGY -** BY DR. N. MURGESH
6. **LAB TECH HISTOPATHOLOGY & CYTOPATHOLOGY –** BY DR. DINESH KUMAR SHUKLA, DR. N. MURGESH
7. **LAB TECH HAEMATOLOGY -** BY DR. DINESH KUMAR SHUKLA, DR. N. MURGESH
8. **LAB TECH BLOOD BANKING -** BY DR. N. MURGESH
9. **LAB TECH MICROBIOLOGY I -** BY DR. DINESH KUMAR SHUKLA, DR. N. MURGESH
10. **LAB TECH MICROBIOLOGY II -** BY DR. DINESH KUMAR SHUKLA, DR. N. MURGESH